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THE CLINICAL BENEFITS OF DEVICE OPTIMIZATION AT LONG-TERM FOLLOW-UP IN CARDIAC RESYNCHRONIZATION THERAPY: RESULTS FROM THE CRT UTILIZATION BY INTERVENTIONAL CARDIOLOGISTS (CUBIC) STUDY

Poster Contributions
Hall C
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Authors: *Yuko Toyoshima, Koichi Inoue, Koji Tanaka, Toshinari Onishi, Nobuaki Tanaka, Takafumi Oka, Yohei Sotomi, Yoichi Nozato, Katsuomi Iwakura, Kenshi Fujii, Takaaki Isshki, Takeshi Kimura, Masakiyo Nobuyoshi, Ando Kenji, Satoshi Shizuta, Takeshi Arita, Satoki Fujii, Sakurabashi-Watanabe Hosipital, Osaka, Japan*

Background: Only a few multicenter trials have provided controversial data on the beneficial effects of atrioventricular (AV) and interventricular (VV) intervals optimization on clinical outcomes in patients with cardiac resynchronization therapy (CRT). The objective of this study is to investigate the impact of AV and VV intervals optimization on the long-term clinical response of CRT using the database of the CRT Utilization By Interventional Cardiologists (CUBIC) Study.

Methods: A total of 995 patients were enrolled in the CUBIC study which was a Japanese multicenter registry, and 501 patients with sinus rhythm were included in this study. Patients were divided into 2 groups according to the presence or absence of AV and VV intervals optimization. The primary endpoint was a > 15% reduction in left ventricular end-systolic volume at 6 months. Secondary endpoint was combined all-cause mortality and heart failure-related hospitalization.

Results: Among the 501 study patients, 330 patients underwent AV and VV intervals optimization at the time of discharge after CRT device implantation. There was no significant difference in a proportion of reverse remodeling at 6 months (60% vs. 55%, p= 0.30) between patients with and without device optimization. The event rate of the secondary endpoint in optimization group (42%) was not significantly different from that in non-optimization group (44%) over 5-year follow-up (log-rank test, p= 0.33).

Conclusions: AV and VV intervals optimization did not show significant clinical benefits at long-term follow-up in CUBIC registry. These data cannot support AV and VV intervals optimization routinely in all patients receiving CRT.